

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
under the Securities Act of 1933

Titan Pharmaceuticals, Inc.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or Other Jurisdiction of
Incorporation or Organization)

2836

(Primary Standard Industrial
Classification Number)

94-3171940

(I.R.S. Employer
Identification No.)

**400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
Tel: (650) 244-4990**

(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Kate Beebe DeVarney, Ph.D., President and Chief Operating Officer

**Titan Pharmaceuticals, Inc.
400 Oyster Point Blvd., Suite 505
South San Francisco, California 94080
Tel: (650) 244-4990**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer Accelerated Filer Non-Accelerated Filer Smaller Reporting Company
Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

\$11,000,000



Titan Pharmaceuticals, Inc.

Shares of Common Stock

This is an offering of _____ shares of our common stock, par value \$0.001 per share, at an assumed public offering price of \$ _____ per share of common stock.

Our common stock trades on The Nasdaq Capital Market under the symbol "TTNP." On June 22, 2023, the last reported sale price of our common stock on The Nasdaq Capital Market was \$0.73 per share, and this preliminary prospectus assumes a public offering price of \$ _____ per share. The actual public offering price per share of common stock will be determined between us and the underwriter in the offering and may be at a discount to the current market price. The assumed public offering price used throughout this prospectus may not be indicative of the final offering price. See "Risks Related to Our Common Stock — If we cannot satisfy The Nasdaq Capital Market continued listing standards and other Nasdaq rules, our common stock could be delisted, which would harm our business, the trading price of our common stock, our ability to raise additional capital and the liquidity of the market for our common stock" for important information about the listing of our common stock.

Investing in our securities involves a high degree of risk. See the section entitled "Risk Factors" beginning on page 7 of this prospectus and in the documents incorporated by reference into this prospectus for a discussion of risks that should be considered in connection with an investment in our securities.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER REGULATORY BODY HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Share	Total
Public offering price	\$ _____	\$ _____
Underwriting discounts and commissions ⁽¹⁾	\$ _____	\$ _____
Proceeds to us, before expenses	\$ _____	\$ _____

(1) See "Underwriting" for a description of the compensation payable to the underwriter and reimbursable expenses in connection with the offering.

The underwriter expects to deliver the shares against payment in New York, New York on or about _____, 2023.

The date of this prospectus is _____, 2023

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You should rely only on the information contained or incorporated into this prospectus. Neither we nor the underwriter has authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date regardless of the time of delivery of this prospectus or any sale of our securities. Our business, financial condition, results of operations and prospects may have changed since that date. You should also read this prospectus together with the additional information described under "Where You Can Find More Information" and "Incorporation of Information by Reference."

No action is being taken in any jurisdiction outside the United States to permit a public offering of our securities or possession or distribution of this prospectus in any such jurisdiction. Persons who come into possession of this prospectus in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions about this offering and the distribution of this prospectus applicable to those jurisdictions.

PROSPECTUS SUMMARY

The following summary highlights selected information contained in other parts of this prospectus or incorporated by reference into this prospectus from our filings with the Securities and Exchange Commission (the "SEC") listed in the section of the prospectus entitled "Incorporation of Information by Reference." Because it is only a summary, it does not contain all of the information that you should consider before purchasing our securities in this offering and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference into this prospectus. You should read the entire prospectus, the registration statement of which this prospectus is a part, and the information incorporated by reference herein in their entirety, including our financial statements and the related notes incorporated by reference into this prospectus, before making an investment decision. Some of the statements in this prospectus and the documents incorporated by reference herein constitute forward-looking statements that involve risks and uncertainties. See information set forth under the section "Special Note Regarding Forward-Looking Statements."

Unless the context otherwise requires or indicates, all references in this prospectus to "we," "our," "us," "Titan" and the "Company" each mean Titan Pharmaceuticals, Inc., a Delaware corporation, and its consolidated subsidiaries.

Our Company

Overview of our Business

We are a pharmaceutical company developing therapeutics utilizing our proprietary long-term drug delivery platform, ProNeura[®], for the treatment of select chronic diseases for which steady state delivery of a drug has the potential to provide an efficacy and/or safety benefit. ProNeura consists of a small, solid implant made from a mixture of ethylene-vinyl acetate, or EVA, and a drug substance. The resulting product is a solid matrix that is designed to be administered subdermally in a brief, outpatient procedure and is removed in a similar manner at the end of the treatment period.

Our first product based on our ProNeura technology is Probuphine[®] (buprenorphine implant), which is approved in the United States, Canada and the European Union, or EU, for the maintenance treatment of opioid use disorder in clinically stable patients taking 8 mg or less a day of oral buprenorphine. While Probuphine continues to be commercialized in Canada and the EU (as Sixmo[™]) by other companies that have either licensed or acquired the rights from us, we discontinued commercialization of the product in the United States during the fourth quarter of 2020 to allow us to focus our limited resources on other product development programs.

In December 2021, we announced our intention to work with our financial advisor to explore strategic alternatives to enhance stockholder value, potentially including an acquisition, merger, reverse merger, sale of assets, licensing or other business combination transaction. In June 2022, we implemented a plan to reduce expenses and conserve capital that included a company-wide reduction in salaries and a scale back of certain operating expenses to enable us to maintain sufficient resources as we pursued potential strategic alternatives. In July 2022, David E. Lazar and Activist Investing LLC acquired an approximately 25% ownership interest in our company, filed a proxy statement and nominated six additional directors, each of whom was elected to our board of directors at a special meeting of stockholders held on August 15, 2022 (the "Special Meeting"). The exploration and evaluation of possible strategic alternatives by the Board has continued following the Special Meeting. To date, we have no commitments with respect to any such strategic alternatives. Following the election of new directors at the Special Meeting, Dr. Marc Rubin was replaced as our Executive Chairman and Mr. Lazar assumed the position of Chief Executive Officer. In connection with Dr. Rubin's cessation of employment as Executive Chairman, we agreed to make aggregate severance payments to him of approximately \$400,000, of which approximately \$247,000 had been paid as of March 31, 2023. In December 2022, we implemented additional cost reduction measures including a reduction in our workforce. On June 21, 2023, Mr. Lazar entered into and completed a Share Transfer Agreement with Choong Choon Hau, pursuant to which Mr. Lazar sold all of his beneficial ownership interests in our company (excluding equity based compensation) to Mr. Choong.

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ProNeura Continuous Drug Delivery Platform

Our ProNeura continuous drug delivery system consists of a small, solid rod-shaped implant made from a mixture of EVA and a given drug substance. The resulting product is a solid matrix that is placed subdermally, normally in the inside part of the upper arm in a brief procedure using a local anaesthetic and is removed in a similar manner at the end of the treatment period. The drug substance is released continuously through the process of dissolution-controlled diffusion. This results in a continuous, steady rate of release generally similar to intravenous administration. We believe that such long-term, near linear release characteristics are desirable as they avoid the fluctuating peak and trough drug levels seen with oral dosing that often poses treatment problems in a range of diseases.

The ProNeura platform was developed to address the need for a simple, practical method to achieve continuous long-term drug delivery, and depending on the characteristics of the compound to be delivered, can potentially provide treatment on an outpatient basis over extended periods of up to 12 months. We believe that the benefits of this technology have been demonstrated by the clinical results seen to date with Probuphine, and that the development and regulatory processes have been validated by approvals of this product by the U.S. Food and Drug Administration, or FDA, the European Medicines Agency, or EMA, and Health Canada. We have further demonstrated the feasibility of the ProNeura platform with small molecules, hormones, and bio-active peptides. The delivery system works with both hydrophobic and hydrophilic molecules. We have also shown the flexibility of the platform by experimenting with the release characteristics of the EVA implants, layering the implants with varying concentrations of drugs, and generating implants of different sizes and porosity to achieve a desired delivery profile.

Our Development Programs to Date

We currently have the following development programs, but for which development activities have been substantially curtailed while we are exploring several financing and strategic alternatives.

TP-2021 Development Program

Several years ago, we began limited non-clinical laboratory experiments in collaboration with JT Pharmaceuticals, Inc., or JT Pharma, to assess the feasibility of delivering JT Pharma's kappa opioid agonist peptide, or TP-2021, utilizing our ProNeura system. Following our acquisition of TP-2021 in October 2020, we successfully manufactured a prototype implant containing TP-2021 (TP-2021 - ProNeura) to be used in appropriate small animal models. While our initial work focused on TP-2021's ability to activate peripheral kappa opioid receptors, potentially providing a non-addictive treatment for certain types of pain, our research pivoted in January 2021 to explore the feasibility of using TP-2021 in the treatment of chronic pruritus, a severe and debilitating condition defined as itching of the skin lasting longer than six weeks. According to a 2015 review by Mollanazar, N., et al. in Current Dermatology Reports, an estimated 23 to 44 million Americans suffer from chronic pruritus of both cutaneous and systemic etiologies. Current treatments include antihistamines, corticosteroids, and over-the-counter lotions, all of which are relatively ineffective and/or have undesirable side-effect profiles. The antipruritic effect of kappa opioid agonists is thought to be related to their binding to kappa opioid receptors on keratinocytes, immune cells, and peripheral itch neurons.

In February 2021, we announced that early non-clinical studies of TP-2021 showed very high affinity and specificity for the human kappa opioid receptor and demonstrated potent antipruritic activity when injected subcutaneously in a mouse model for moderate to severe pruritus. TP-2021 - ProNeura implants were then formulated and tested in this model. In November 2021, data presented at the annual meeting of the Society for Neuroscience demonstrated that significant reduction in scratching behavior in this proven animal model for pruritus was maintained in mice which received the TP-2021 - ProNeura implant through Day 56 post-implantation, when compared with control untreated mice, with no safety issues observed for the implanted animals over the three-month duration of treatment. Subsequently, efficacy in this pruritus model has been extended through Day 84 post-implantation. In addition, the TP-2021 - ProNeura implant provided sustained supra-therapeutic plasma levels of the peptide through Day 84 post-implantation in a separate pharmacokinetic study in mice. We believe that subdermal implantation of TP-2021 - ProNeura could potentially deliver therapeutic concentrations of TP-2021 in human subjects for up to six months or longer following a single in-office procedure. Investigational New Drug, or IND, enabling non-clinical safety and pharmacology studies will need to be conducted in preparation for regulatory approval to enter human clinical studies. Additional funding from external sources for progression of the non-clinical program is required and will be dependent on finding a suitable partner.

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Nalmefene Development Program

We have developed a subdermal ProNeura implant containing nalmefene for the prevention of opioid relapse following detoxification of patients suffering opioid use disorder. The FDA cleared the IND for this program in July 2022. To date, this program has been partially supported by a September 2019 grant from the National Institute for Drug Addiction, or NIDA, which provided approximately \$8.7 million of Federal money for the completion of implant formulation development, cGMP manufacturing and non-clinical studies required for filing an IND. We may be eligible for additional grant funding of approximately \$6.3 million from NIDA, dependent on a progress review at NIDA. Additional funding from external sources for progression of the clinical program will be separately sought and will be dependent on finding a suitable partner.

In early 2020, following a meeting with the FDA to review our non-clinical development plans and obtain guidance regarding filing an IND, the FDA provided guidance on the type of development plan that we should follow. Specifically, the FDA advised that this product development should follow the more expansive 505(b)(1) regulatory pathway rather than the shorter, more streamlined 505(b)(2) regulatory pathway we had been pursuing. In September 2021, the FDA advised that it was reconsidering the regulatory pathway for the nalmefene implant and could ultimately determine that the 505(b)(2) process is potentially appropriate.

Gates Foundation Grant

In October 2021, we received an approximately \$500,000 grant from the Bill and Melinda Gates Foundation to demonstrate the ability to deliver a combination HIV preventative therapeutic and a contraceptive from a single ProNeura implant for women and adolescent girls in low- and middle-income countries.

Our Material Business Agreements

JT Pharmaceuticals Acquisition

In October 2020, we entered into an Asset Purchase Agreement, or the JT Agreement, with JT Pharmaceuticals, Inc., or JT Pharma, to acquire JT Pharma's kappa opioid agonist peptide, TP-2021, for use in combination with our ProNeura long-term, continuous drug delivery technology for the treatment of chronic pruritus and other potential medical applications. Under the terms of the JT Agreement, JT Pharma received a \$15,000 closing payment and is entitled to receive future milestone payments, payable in cash or in stock, based on the achievement of regulatory milestones, and single-digit percentage earn-out payments on net sales of the product if successfully developed and approved for commercialization. In January 2022, in connection with our entry into a clarification agreement with JT Pharma, we made the first milestone payment under the JT Agreement of \$100,000 and issued 51,021 shares of our common stock related to the completion of a proof-of-concept study in an animal model.

Knight License Agreement

Pursuant to an agreement (as amended, the "Knight Agreement"), we granted Knight Therapeutics Inc., or Knight, an exclusive license to commercialize Probuphine in Canada, as well as a right of first negotiation in the event we intend to license commercialization rights to any other products in Canada. We are entitled to receive royalty payments from Knight on net sales of Probuphine in Canada ranging in percentage from the low-teens to the mid-thirties. In addition, we agreed to be the exclusive supplier of Probuphine to Knight pursuant to a supply agreement between us and Knight. During the term of the Knight Agreement, we may not commercialize any product in Canada containing buprenorphine that is intended for a treatment duration of six months or more.

Unless earlier terminated, the initial term of the Knight Agreement will expire on the 15th anniversary of the date of the first commercial sale of Probuphine for opioid addiction in Canada, which occurred during the fourth quarter of 2018. If Probuphine is approved for another indication in Canada after the fifth anniversary of the first commercial sale of Probuphine for opioid addiction in Canada, we must negotiate in good faith whether to extend the initial term. After the initial term, the Knight Agreement will automatically renew for two-year periods until either party provides the other party with written notice of its intent not to renew at least 180 days prior to the expiration of the initial term or then-current term. We or Knight may terminate the Knight Agreement in the event that (i) either party determines in good faith that it is not advisable for Knight to continue to commercialize Probuphine in Canada as a result of a bona fide safety issue, (ii) the other party has filed for bankruptcy, reorganization, liquidation or receivership proceedings, or (iii) the other party materially breaches the agreement and has not cured such breach within a specified time period. In addition, subject to certain exceptions and requirements, we may terminate the Knight Agreement (i) if Knight discontinues the commercial sale of Probuphine for a period of at least three months and fails to resume sales within the specified cure period, or (ii) in the event that Knight commences any legal proceedings seeking to challenge the validity or ownership of any of our patents related to Probuphine.

In the event of termination, among other things, Knight will (i) cease commercialization of Probuphine in Canada, (ii) transfer title to all current and pending regulatory submissions and regulatory approvals for Probuphine to us and (iii) pay any royalty payments generated by Knight's sales of Probuphine in Canada due to us.

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Manufacturing Alliances

Ongoing formulation development is conducted at a dedicated facility established at Southwest Research Institute, or SwRI[®], in San Antonio, Texas that includes cGMP manufacturing and testing capabilities. We also receive support services from the vast array of SwRI groups with expertise in manufacturing and material sciences. The facilities are compliant with both FDA and Drug Enforcement Agency, or DEA, requirements enabling us to work with controlled substances, and the manufacturing scale is ideal for product development during non-clinical and clinical testing stages.

Manufacturing of Probuphine was primarily conducted at DPT Laboratories, Inc., or DPT, pursuant to a commercial manufacturing agreement with DPT that governed the terms of the production and supply of Probuphine for the United States, Canada and EU. In October 2020, we entered into Debt Settlement and Release Agreement, which transferred the manufacturing facility at DPT to L. Molteni & C. Dei Fratelli Alitti Societa Di Esercizio S.P.A., or Molteni. Under the agreement, we retain access to the facility, through Molteni, for the manufacture and supply of Probuphine to Knight for Canada.

Our Patents and Proprietary Rights

In June 2010, the United States Patent and Trademark Office, or USPTO, issued a patent covering methods of using Probuphine for the treatment of opiate addiction. We are the owner of this patent which claims a method for treating opiate addiction with a subcutaneously implanted device comprising buprenorphine and EVA, a biocompatible copolymer that releases buprenorphine continuously for extended periods of time. This patent will expire in April 2024. We have filed a Patent Cooperation Treaty patent application for the use of a kappa-opioid receptor agonist implant with respect to the treatment of pruritus.

We have pending patent applications in the United States, Australia, Canada, China, Europe, Hong Kong, India, Japan and Mexico for implants for release of lipophilic or amphiphilic pharmaceutical substances, and for loadable porous structures for use as implants. We also have granted patents in Europe and Australia and pending patent applications in the United States, Canada, China, Hong Kong, India, Japan, South Korea, Mexico, Singapore and South Africa for implants with reduced initial burst.

We have additional patents for a heterogeneous implant designed with some unique properties that may provide benefits to the structural integrity of the implants and potentially enhance drug delivery. Patents for this heterogeneous implant have been granted in the United States, Australia, Canada, Europe, Hong Kong, India, Japan, South Korea, Mexico, Singapore and South Africa.

Risks Affecting Our Business

Our business is subject to numerous risks and uncertainties that you should consider before investing in our company. These risks are described more fully in the section titled "Risk Factors" in this prospectus. Below are the principal factors that make an investment in our company speculative or risky:

- Even if this offering is successful, we will need to raise additional capital in the future to continue operations, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital if needed may have an adverse impact on our business and operations.
- We have incurred net losses in almost every year since our inception, which losses will continue for the foreseeable future and raise substantial doubt about our ability to continue as a going concern.
- We will require additional proceeds to fund our product development programs and working capital requirements.
- Our net operating losses and research and development tax credits may not be available to reduce future federal and state income tax payments.

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- Our ProNeura development programs are at very early stages and will require substantial additional resources that may not be available to us.
- Clinical trials required for new product candidates are expensive and time-consuming, and their outcome is uncertain.
- We face risks associated with product liability lawsuits that could be brought against us.
- We may be unable to protect our patents and proprietary rights.
- We must comply with extensive government regulations.
- Rising inflation and interest rates could negatively impact our revenues, profitability and borrowing costs. In addition, if our costs increase and we are not able to correspondingly adjust our commercial relationships to account for this increase, our net income would be adversely affected, and the adverse impact may be material.
- We are increasingly dependent on information technology systems, infrastructure and data. Cybersecurity breaches could expose us to liability, damage our reputation, compromise our confidential information or otherwise adversely affect our business.
- Our share price may be volatile, which could prevent you from being able to sell your shares at or above your purchase price.
- Provisions in our corporate charter documents and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.
- If we cannot satisfy The Nasdaq Capital Market continued listing standards and other Nasdaq rules, our common stock could be delisted, which would harm our business, the trading price of our common stock, our ability to raise additional capital and the liquidity of the market for our common stock.
- Future sales of our common stock, or the perception that future sales may occur, may cause the market price of our common stock to decline, even if our business is doing well.
- Our largest single stockholder, Choong Choon Hau, has significant voting power over our common stock and may vote his shares in a manner that is not in the best interest of other stockholders.
- We have never paid any cash dividends and have no plans to pay any cash dividends in the future.

Corporate Information

We were incorporated under the laws of the State of Delaware in February 1992. Our principal executive offices are located at 400 Oyster Point Blvd., Suite 505, South San Francisco, CA 94080. Our telephone number is (650) 244-4990. We make our SEC filings available on the Investor Relations page of our website, <http://titanpharm.com>. Information contained on our website is not part of this prospectus.

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The Offering

The following summary contains basic terms about this offering and the securities in this offering and is not intended to be complete. It may not contain all of the information that is important to you. You should read the more detailed information contained in this prospectus, including but not limited to, the Risk Factors section beginning on page 7 of this prospectus. For a more complete description of the terms of the common stock, see the section of this prospectus entitled “Description of Our Capital Stock.”

Common stock offered by us:	shares of common stock.
Offering price:	This preliminary prospectus assumes a public offering price of \$ per share of common stock.
Common stock to be outstanding after this offering:	shares.
Use of proceeds:	We estimate that our net proceeds from the offering will be approximately \$ after deducting underwriting discounts and commissions and estimated offering expenses of approximately \$. We intend to use the net proceeds of this offering to pursue strategic alternatives and fund potential acquisitions, and for working capital and other general corporate purposes.
Risk factors:	You should read the “Risk Factors” section of this prospectus as well as all other information included in this prospectus, including the information in the documents incorporated by reference into this prospectus, for a discussion of certain of the factors to consider carefully before deciding to purchase any securities in this offering.
Lock-up:	We and each of our officers and directors have agreed, subject to certain exceptions, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any shares of our common stock or other securities convertible into or exercisable or exchangeable for shares of our common stock for a period of 90 days after this offering is completed without the prior written consent of the underwriter.
Transfer agent:	The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.
Nasdaq Capital Market Symbol:	Our common stock trades on The Nasdaq Capital Market under the symbol “TTNP.”

The number of shares of our common stock outstanding before and after this offering is based on 15,016,295 shares of common stock outstanding as of the date of this prospectus and excludes, as of such date, (i) up to 9,826,881 shares to be issued upon exercise of outstanding common stock warrants, (ii) up to 679 shares to be issued upon exercise of outstanding stock options pursuant to our 2014 Stock Plan, (iii) up to 910,568 shares to be issued upon exercise of outstanding stock options pursuant to our 2015 Stock Plan, (iv) 1,025,000 shares to be issued upon exercise of stock options subject to shareholder approval of an amendment to increase the number of shares reserved for issuance under our 2015 Stock Plan, and (v) 89,432 shares available for future issuance under our 2015 Stock Plan.

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RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks described below, together with the other information contained in this prospectus, including our financial statements and the related notes, which are incorporated herein by reference, before making your decision to invest in our securities. We cannot assure you that any of the events discussed in the risk factors below will not occur. These risks could have a material and adverse impact on our business, results of operations, financial condition and cash flows, and our future prospects would likely be materially and adversely affected. If that were to happen, the trading price of our common stock could decline, and you could lose all or part of your investment. In addition, you should carefully consider the other risks described under the heading “Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2022 and Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, which are incorporated herein by reference, as updated by annual, quarterly and other reports and documents we file with the SEC after the date of this prospectus and that are incorporated by reference herein.

Risks Related to this Offering

We have significant discretion over the use of the net proceeds from this offering.

Our net proceeds from this offering are expected to be approximately \$. We intend to use the net proceeds of this offering to pursue strategic alternatives and fund potential acquisitions, and for working capital and other general corporate purposes. Our management will have broad discretion as to the application of such proceeds. As is the case with any business, it should be expected that certain expenses unforeseeable to management at this juncture will arise in the future. There can be no assurance that management’s use of proceeds generated through this offering will prove optimal or translate into revenue or profitability for us. Investors are urged to consult with their personal investment advisors, attorneys and accountants prior to making any decision to invest in us.

Even if this offering is successful, we will need to raise additional capital in the future to continue operations, which may not be available on acceptable terms, or at all. Failure to obtain this necessary capital if needed may have an adverse impact on our business and operations.

As described further below, we have incurred net losses in almost every year since our inception. We may incur additional net losses from operations in the future, and we may experience quarter-to-quarter fluctuations in revenues, expenses and losses, some of which may be significant.

We estimate that we will receive net proceeds of approximately \$ from the sale of common stock offered by us in this offering, based on the assumed public offering price of \$ per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. In the event of a decrease in the net proceeds to us from this offering as a result of a decrease in the assumed public offering price per share or the number of shares offered by us, we may need to scale back or eliminate certain of our business plans or raise additional capital sooner than we anticipate. However, we may not be able to raise additional funds on acceptable terms, or at all. Conditions in the capital markets may make equity and debt financing more difficult to obtain, and may negatively impact our ability to complete financing transactions. Any debt financing, if available, may involve restrictive covenants, such as limitations on our ability to incur additional indebtedness and other operating restrictions that could adversely impact our ability to conduct our business.

An investment in our securities is speculative and there can be no assurance of any return on any such investment.

An investment in our securities is speculative and there is no assurance that investors will obtain any return on their investment. Investors will be subject to a high degree of risk involved in an investment in us, including the risk of losing their entire investment.

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You may experience dilution if we issue additional equity or equity-linked securities in the future.

If we issue additional shares of common stock, or securities convertible into or exchangeable or exercisable for shares of common stock, our stockholders, including investors who purchase shares of common stock in this offering, may experience dilution, and any such issuances may result in downward pressure on the price of our common stock. We also cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. If we issue additional equity securities, employee stock grants vest, or there are any issuances and subsequent exercises of stock options issued in the future, you will experience additional dilution. See the section entitled “Dilution” for a more detailed discussion of the net tangible book value per share of our common stock as impacted by this offering.

Resales of our common stock in the public market by our stockholders as a result of this offering may cause the market price of our common stock to fall.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. The issuance of new shares of our common stock could result in resales of our common stock by our current stockholders concerned about the potential ownership dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our common stock.

As a smaller reporting company, we are subject to scaled disclosure requirements that may make it more challenging for investors to analyze and compare our results of operations and financial prospects.

Currently, we are a “smaller reporting company,” as defined by Rule 12b-2 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). As a “smaller reporting company,” we are able to provide simplified executive compensation disclosures in our filings and have certain other decreased disclosure obligations in our filings with the SEC, including being required to provide only two years of audited financial statements in annual reports. Consequently, it may be more challenging for investors to analyze our results of operations and financial prospects.

Furthermore, we are a non-accelerated filer as defined by Rule 12b-2 of the Exchange Act, and, as such, are not required to provide an auditor attestation of management’s assessment of internal control over financial reporting, which is generally required for SEC reporting companies under Section 404(b) of the Sarbanes-Oxley Act. Because we are not required to, and have not, had our auditor provide an attestation of our management’s assessment of internal control over financial reporting, a material weakness in internal controls may remain undetected for a longer period.

If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, the price and trading volume of our securities could decline.

The trading market for our securities will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not currently have and may never obtain research coverage by securities and industry analysts. If no or few securities or industry analysts commence coverage of us, the trading price for our securities would be negatively impacted. In the event we obtain securities or industry analyst coverage, if any of the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, our intellectual property or our stock performance, or if our clinical trials and operating results fail to meet the expectations of analysts, the price of our securities would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, we could lose visibility in the financial markets, which in turn could cause the price or trading volume of our securities to decline.

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Risks Related to our Financial Condition and Need for Additional Capital

We have incurred net losses in almost every year since our inception, which losses will continue for the foreseeable future and raise substantial doubt about our ability to continue as a going concern.

We have incurred net losses in almost every year since our inception. Our financial statements have been prepared assuming that we will continue as a going concern. For the years ended December 31, 2022 and 2021 and for the three months ended March 31, 2023, we had net losses of approximately \$10.2 million, \$8.8 million and \$1.7 million, respectively, and had net cash used in operating activities of approximately \$8.2 million, \$7.9 million and \$1.9 million, respectively. These net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders’ equity and working capital, which have declined in the past year. As of March 31, 2023, we had cash and cash equivalents of approximately \$1.1 million. We expect to continue to incur net losses and negative operating cash flow for the foreseeable future as we explore and evaluate possible strategic alternatives and continue development of ProNeura based products. The amount of future net losses will depend, in part, on the rate of future growth of our expenses and our ability to obtain government or third-party funding for our development programs. Our history of losses raises substantial doubt about our ability to continue as a going concern.

We will require additional proceeds to fund our product development programs and working capital requirements

We currently estimate that our available cash and cash equivalents will be sufficient to fund our working capital needs and product development efforts into the second quarter of 2023. We will require substantial additional funds to advance our kappa opioid agonist program beyond the proof-of-concept stage, and to fund our ProNeura development programs, including nalmefene, into the clinic and to complete the regulatory approval process necessary to commercialize any products we might develop. Investment in pharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that a product candidate will fail to gain regulatory approval or become commercially viable. While we are currently evaluating the alternatives available to us, including the possible sale of our Probuphine assets, government grants, third-party collaborations for one or more of our ProNeura programs and potential merger opportunities, our efforts to address our liquidity requirements may not be successful. Furthermore, there can be no assurance that any source of capital will be available to us on acceptable terms or will not involve substantial dilution to our stockholders. Our failure to obtain substantial funds in the next several months would likely result in the cessation of one or more of our development programs or the wind-down of our business.

Our net operating losses and research and development tax credits may not be available to reduce future federal and state income tax payments.

At December 31, 2022, we had federal net operating loss and tax credit carryforwards of approximately \$237.4 million and approximately \$6.8 million, respectively, and state net operating loss and tax credit carryforwards of approximately \$115.2 million and approximately \$9.2 million, respectively, available to offset future taxable income, if any. Current federal and state tax laws include substantial restrictions on the utilization of net operating loss and tax credits in the event of an ownership change and we cannot assure you that our net operating loss and tax carryforwards will continue to be available.

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Risks Related to Our Business and Industry

Our ProNeura development programs are at very early stages and will require substantial additional resources that may not be available to us.

To date, other than our work on Probuphine in opioid use disorder and our work on nalmefene, we have conducted only limited research and development activities assessing our ProNeura delivery system's applicability in other potential indications. While the nalmefene program has been funded in large part by NIDA, there is no assurance that NIDA will continue to provide the necessary funding to complete the regulatory approval process for this product candidate. We will also require substantial additional funds to advance our kappa opioid agonist program beyond the proof-of-concept stage and to support further research and development activities, including the anticipated costs of nonclinical studies and clinical trials, regulatory approvals, and eventual commercialization of any therapeutic based on our ProNeura platform technology. If we are unable to obtain substantial government grants or enter into third-party collaborations to fund our ProNeura programs, we will need to seek additional sources of financing, which may not be available on favorable terms, if at all. If we are unsuccessful in obtaining the requisite funding for our ProNeura programs, we could be forced to discontinue product development. Furthermore, funding arrangements with collaborative partners or others may require us to relinquish rights to technologies, product candidates or products that we would otherwise seek to develop or commercialize ourselves or license rights to technologies, product candidates or products on terms that are less favorable to us than might otherwise be available.

Our ability to successfully develop any future product candidates based on our ProNeura drug delivery technology is subject to the risks of failure and delay inherent in the development of new pharmaceutical products, including: delays in product development, clinical testing, or manufacturing; unplanned expenditures in product development, clinical testing, or manufacturing; failure to receive regulatory approvals; emergence of superior or equivalent products; inability to manufacture on our own, or through any others, product candidates on a commercial scale; and failure to achieve market acceptance. Because of these risks, our research and development efforts may not result in any commercially viable products and our business, financial condition, and results of operations could be materially harmed.

Clinical trials required for new product candidates are expensive and time-consuming, and their outcome is uncertain.

Conducting clinical trials is a lengthy, time-consuming, and expensive process. The length of time may vary substantially according to the type, complexity, novelty, and intended use of the product candidate, and often can be several years or more per trial. Delays associated with products for which we are directly conducting clinical trials may cause us to incur additional operating expenses. The commencement and rate of completion of clinical trials may be delayed by many factors, including, for example:

- inability to manufacture sufficient quantities of qualified materials under cGMP for use in clinical trials;
- slower than expected rates of patient recruitment;
- failure to recruit a sufficient number of patients; modification of clinical trial protocols;
- changes in regulatory requirements for clinical trials;
- the lack of effectiveness during clinical trials;
- the emergence of unforeseen safety issues;
- delays, suspension, or termination of the clinical trials due to the institutional review board responsible for overseeing the study at a particular study site; and
- government or regulatory delays or "clinical holds" requiring suspension or termination of the trials.

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The results from early clinical trials are not necessarily predictive of results obtained in later clinical trials. Accordingly, even if we obtain positive results from early clinical trials, we may not achieve the same success in future clinical trials. Clinical trials may not demonstrate statistically significant safety and effectiveness to obtain the requisite regulatory approvals for product candidates. The failure of clinical trials to demonstrate safety and effectiveness for the desired indications could cause us to abandon a product candidate and could delay development of other product candidates. Any delay in, or termination of, our clinical trials could materially harm our business, financial condition, and results of operations.

We face risks associated with third parties conducting preclinical studies and clinical trials of our products.

We depend on third-party laboratories and medical institutions to conduct preclinical studies and clinical trials for our products and other third-party organizations to perform data collection and analysis, all of which must maintain both good laboratory and good clinical practices. We also depend upon third-party manufacturers for the production of any products we may successfully develop to comply with cGMP of the FDA, which are similarly outside our direct control. If third-party laboratories and medical institutions conducting studies of our products fail to maintain both good laboratory and clinical practices, the studies could be delayed or have to be repeated.

We face risks associated with product liability lawsuits that could be brought against us.

The testing, manufacturing, marketing and sale of human therapeutic products entail an inherent risk of product liability claims. We currently have a limited amount of product liability insurance, which may not be sufficient to cover claims that may be made against us in the event that the use or misuse of our product candidates causes, or merely appears to have caused, personal injury or death. In the event we are forced to expend significant funds on defending product liability actions, and in the event those funds come from operating capital, we will be required to reduce our business activities, which could lead to significant losses. Adequate insurance coverage may not be available in the future on acceptable terms, if at all. If available, we may not be able to maintain any such insurance at sufficient levels of coverage and any such insurance may not provide adequate protection against potential liabilities. Whether or not a product liability insurance policy is obtained or maintained in the future, any claims against us, regardless of their merit, could severely harm our financial condition, strain our management and other resources or destroy the prospects for commercialization of the product which is the subject of any such claim.

We may be unable to protect our patents and proprietary rights.

Our future success will depend to a significant extent on our ability to:

- obtain and keep patent protection for our products, methods and technologies on a domestic and international basis;
- enforce our patents to prevent others from using our inventions;

- maintain and prevent others from using our trade secrets; and
- operate and commercialize products without infringing on the patents or proprietary rights of others.

We cannot assure you that our patent rights will afford any competitive advantages, and these rights may be challenged or circumvented by third parties. Further, patents may not be issued on any of our pending patent applications in the United States or abroad. Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that before a potential product can be commercialized, any related patent may expire or remain in existence for only a short period following commercialization, reducing or eliminating any advantage of the patent. If we sue others for infringing our patents, a court may determine that such patents are invalid or unenforceable. Even if the validity of our patent rights is upheld by a court, a court may not prevent the alleged infringement of our patent rights on the grounds that such activity is not covered by our patent claims.

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In addition, third parties may sue us for infringing their patents. In the event of a successful claim of infringement against us, we may be required to:

- pay substantial damages;
- stop using our technologies and methods;
- stop certain research and development efforts;
- develop non-infringing products or methods; and
- obtain one or more licenses from third parties.

If required, we cannot assure you that we will be able to obtain such licenses on acceptable terms, or at all. If we are sued for infringement, we could encounter substantial delays in development, manufacture and commercialization of our product candidates. Any litigation, whether to enforce our patent rights or to defend against allegations that we infringe third-party rights, will be costly, time consuming, and may distract management from other important tasks.

We also rely in our business on trade secrets, know-how and other proprietary information. We seek to protect this information, in part, through the use of confidentiality agreements with employees, consultants, advisors and others. Nonetheless, we cannot assure you that those agreements will provide adequate protection for our trade secrets, know-how or other proprietary information and prevent their unauthorized use or disclosure. To the extent that consultants, key employees or other third parties apply technological information independently developed by them or by others to our proposed products, disputes may arise as to the proprietary rights to such information, which may not be resolved in our favor.

We must comply with extensive government regulations.

The research, development, manufacture, labelling, storage, record-keeping, advertising, promotion, import, export, marketing and distribution of pharmaceutical products are subject to an extensive regulatory approval process by the FDA in the United States and comparable health authorities in foreign markets. The process of obtaining required regulatory approvals for drugs is lengthy, expensive and uncertain. Approval policies or regulations may change, and the FDA and foreign authorities have substantial discretion in the pharmaceutical approval process, including the ability to delay, limit or deny approval of a product candidate for many reasons. Despite the time and expense invested in clinical development of product candidates, regulatory approval is never guaranteed. Regulatory approval may entail limitations on the indicated usage of a drug, which may reduce the drug's market potential. Even if regulatory clearance is obtained, post-market evaluation of the products, if required, could result in restrictions on a product's marketing or withdrawal of the product from the market, as well as possible civil and criminal sanctions. Of the large number of drugs in development, only a small percentage successfully complete the regulatory approval process and are commercialized. For further information, you should refer to the information included under the heading "Business – Government Regulation" in our Annual Report on Form 10-K for the year ended December 31, 2022, which is incorporated herein by reference.

We face intense competition that could make our products or technologies non-competitive or obsolete.

We face competition with respect to our product development programs from numerous companies that currently market, or are developing, products for the treatment of the diseases and disorders we have targeted, many of which have significantly greater research and development capabilities, experience in obtaining regulatory approvals and manufacturing, marketing, financial and managerial resources than we have. We also compete with universities and other research institutions in the development of products, technologies and processes, as well as the recruitment of highly qualified personnel. Our competitors may succeed in developing technologies or products that are more effective than the ones we have under development or that render our proposed products or technologies non-competitive or obsolete. In addition, our competitors may achieve product commercialization or patent protection earlier than we will.

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We depend on a small number of employees and consultants that could substantially impair our ongoing commercialization efforts.

We are highly dependent on the services of a limited number of personnel and the loss of one or more of such individuals could substantially impair our ongoing commercialization efforts. We compete in our hiring efforts with other pharmaceutical and biotechnology companies, and it may be difficult and could take an extended period of time because of the limited number of individuals in our industry with the range of skills and experience required and because of our limited resources.

In addition, we retain scientific and clinical advisors and consultants to assist us in all aspects of our business. Competition to hire and retain consultants from a limited pool is intense. Further, because these advisors are not our employees, they may have commitments to, or consulting or advisory contracts with, other entities that may limit their availability to us, and typically they will not enter into non-compete agreements with us. If a conflict of interest arises between their work for us and their work for another entity, we may lose their services. In addition, our advisors may have arrangements with other companies to assist those companies in developing products or technologies that may compete with ours.

We face potential liability related to the privacy of health information we obtain from clinical trials sponsored by us or our collaborators, from research institutions and our collaborators, and directly from individuals.

Numerous federal and state laws, including state security breach notification laws, state health information privacy laws, and federal and state consumer protection laws, govern the collection, use, and disclosure of personal information. In addition, most health care providers, including research institutions from which we or our collaborators obtain patient health information, are subject to privacy and security regulations promulgated under the Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act. Although we are not directly subject to HIPAA, we could potentially be subject to criminal penalties if we, our affiliates, or our agents knowingly obtain or disclose individually identifiable health information maintained by a HIPAA-covered

entity in a manner that is not authorized or permitted by HIPAA.

Rising inflation and interest rates could negatively impact our revenues, profitability and borrowing costs. In addition, if our costs increase and we are not able to correspondingly adjust our commercial relationships to account for this increase, our net income would be adversely affected, and the adverse impact may be material.

Inflation rates, particularly in the United States, have increased recently to levels not seen in years. Increased inflation may result in decreased demand for our products, increased operating costs (including our labor costs), reduced liquidity, and limitations on our ability to access credit or otherwise raise debt and equity capital. In addition, the United States Federal Reserve has raised, and may again raise, interest rates in response to concerns about inflation. Increases in interest rates have had, and could continue to have, a material impact on our borrowing costs. In an inflationary environment, we may be unable to raise the sales prices of our products at or above the rate at which our costs increase, which could reduce our profit margins and have a material adverse effect on our financial results and net income. We also may experience lower than expected sales if there is a decrease in spending on products in our industry in general or a negative reaction to our pricing. A reduction in our revenue would be detrimental to our profitability and financial condition and could also have an adverse impact on our future growth.

We are increasingly dependent on information technology systems, infrastructure and data. Cybersecurity breaches could expose us to liability, damage our reputation, compromise our confidential information or otherwise adversely affect our business.

We are increasingly dependent upon information technology systems, infrastructure and data. Our computer systems may be vulnerable to service interruption or destruction, malicious intrusion and random attack. Security breaches pose a risk that sensitive data, including intellectual property, trade secrets or personal information may be exposed to unauthorized persons or to the public. Cyber-attacks are increasing in their frequency, sophistication and intensity, and have become increasingly difficult to detect. Cyber-attacks could include the deployment of harmful malware, denial-of service, social engineering and other means to affect service reliability and threaten data confidentiality, integrity and availability. Our key business partners face similar risks, and a security breach of their systems could adversely affect our security posture. While we continue to invest in data protection and information technology, there can be no assurance that our efforts will prevent service interruptions, or identify breaches in our systems, that could adversely affect our business and operations and/or result in the loss of critical or sensitive information, which could result in financial, legal, business or reputational harm.

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Risks Related to our Common Stock

Our share price may be volatile, which could prevent you from being able to sell your shares at or above your purchase price.

The market price of shares of our common stock has been and may continue to be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- results of our product development efforts;
- regulatory actions with respect to our products under development or our competitors' products;
- actual or anticipated fluctuations in our financial condition and operating results;
- actual or anticipated fluctuations in our competitors' operating results or growth rate;
- announcements by us, our potential future collaborators or our competitors of significant acquisitions, strategic collaborations, joint ventures, or capital commitments;
- issuance of new or updated research or reports by securities analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- inconsistent trading volume levels of our shares;
- additions or departures of key personnel;
- disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us, our insiders or our other stockholders;
- market conditions for biopharmaceutical stocks in general; and
- general economic and market conditions.

The stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock and could subject us to securities class action litigation.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our share price and trading volume could decline.

The trading market for our common stock will depend on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. There can be no assurance that analysts will cover us or provide favorable coverage. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

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Provisions in our corporate charter documents and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more

difficult and may prevent attempts by our stockholders to replace or remove our current management.

Provisions in our Amended and Restated Certificate of Incorporation and Bylaws may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our Board is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board. Among other things, these provisions provide that:

- the authorized number of directors can be changed only by resolution of our Board;
- our bylaws may be amended or repealed by our Board or our stockholders;
- stockholders may not call special meetings of the stockholders or fill vacancies on the Board;
- our Board is authorized to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the Board and that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that our Board does not approve;
- our stockholders do not have cumulative voting rights, and therefore our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors; and
- our stockholders must comply with advance notice provisions to bring business before or nominate directors for election at a stockholder meeting.

If we cannot satisfy The Nasdaq Capital Market continued listing standards and other Nasdaq rules, our common stock could be delisted, which would harm our business, the trading price of our common stock, our ability to raise additional capital and the liquidity of the market for our common stock.

Our common stock trades on The Nasdaq Capital Market (“Nasdaq”). The listing standards of Nasdaq require that a company maintain stockholders’ equity of at least \$2,500,000 and a minimum bid price subject to specific requirements of \$1.00 per share (the “Stockholders’ Equity Requirement”). There is no assurance that we will be able to maintain compliance with the minimum closing price requirement or the minimum stockholders’ equity requirement. On April 5, 2023, we received a notice from Nasdaq notifying us that our stockholders’ equity as reported in our Annual Report on Form 10-K for the period ended December 31, 2022 (“2022 10-K”) did not satisfy the continued listing requirement under Nasdaq Listing Rule 5550(b)(1) for The Nasdaq Capital Market, which requires that a listed company’s stockholders’ equity be at least \$2,500,000. In our 2022 10-K, we reported stockholders’ equity of \$1,363,000, and as a result, do not currently satisfy Nasdaq Marketplace Rule 5550(b)(1). On May 22, 2023, we submitted a plan to regain compliance with the Stockholders’ Equity Requirement under Nasdaq Listing Rule 5550(b)(1). On June 5, 2023, we received a letter from Nasdaq notifying us that we had been granted an additional 180-day period, or until October 2, 2023, to regain compliance with Nasdaq Listing Rule 5550(b)(1).

In March 2023, we received a letter from the Listing Qualifications staff of Nasdaq notifying us that we were no longer in compliance with the minimum bid price requirement for continued listing on The Nasdaq Capital Market. Nasdaq Listing Rule 5550(a)(2) requires listed companies to maintain a minimum bid price of \$1.00 per share. The letter noted that the bid price of our common stock was below \$1.00 for the 30-day period ended March 15, 2023. The notification letter had no immediate effect on our listing on The Nasdaq Capital Market. Nasdaq has provided us with 180 days, or until September 12, 2023, to regain compliance with the minimum bid price requirement by having a closing bid price of at least \$1.00 per share for a minimum of 10 consecutive business days.

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In January 2023, we received a notice from Nasdaq, regarding the fact that we had not yet held an annual meeting of shareholders within 12 months of the end of our fiscal year ended December 31, 2021 and we no longer comply with Listing Rules for continued listing. In February 2023, we provided Nasdaq with a plan to regain compliance. Nasdaq has accepted our plan for compliance, and we now have until June 29, 2023 to conduct our annual meeting of shareholders in order to regain compliance.

Should we fail to comply with the listing standards applicable to issuers listed on Nasdaq, our common stock may be delisted from Nasdaq. If our common stock is delisted from Nasdaq, our common stock would likely then be quoted on a marketplace tier of the OTC Markets Group, which could reduce the price of our common stock and the levels of liquidity available to our stockholders. If our common stock were to be quoted on a marketplace tier of the OTC Markets Group, selling our common stock could be more difficult because smaller quantities of shares would likely be bought and sold, transactions could be delayed, and we could face significant material adverse consequences, including: a limited availability of market quotations for our securities; reduced liquidity with respect to our securities; a determination that our shares are a “penny stock,” which will require brokers trading in our securities to adhere to more stringent rules, possibly resulting in a reduced level of trading activity in the secondary trading market for our securities; a reduced amount of news and analyst coverage for our company; and a decreased ability to issue additional securities or obtain additional financing in the future. These factors could result in lower prices and larger spreads in the bid and ask prices for our common stock and would substantially impair our ability to raise additional funds and could result in a loss of institutional investor interest and fewer development opportunities for us.

In addition to the foregoing, if our common stock is delisted from Nasdaq and it trades on the over-the-counter market, the application of the “penny stock” rules could adversely affect the market price of our common stock and increase the transaction costs to sell those shares. The SEC has adopted regulations which generally define a “penny stock” as an equity security that has a market price of less than \$5.00 per share, subject to specific exemptions. If our common stock is delisted from Nasdaq and it is quoted on a marketplace tier of the OTC Markets Group at a price of less than \$5.00 per share, our common stock would be considered a penny stock. The SEC’s penny stock rules require a broker-dealer, before a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the risks in the penny stock market. The broker-dealer must also provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and the salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer’s account. In addition, the penny stock rules generally require that before a transaction in a penny stock occurs, the broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser’s agreement to the transaction. If applicable in the future, these rules may restrict the ability of brokers-dealers to sell our common stock and may affect the ability of investors to sell their shares, until our common stock no longer is considered a penny stock.

Future sales of our common stock, or the perception that future sales may occur, may cause the market price of our common stock to decline, even if our business is doing well.

Sales by our stockholders of a substantial number of shares of our common stock in the public market could occur in the future. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock.

We will seek to raise additional funds and may finance acquisitions or develop strategic relationships by issuing securities that would dilute your ownership. Depending on the terms available to us, if these activities result in significant dilution, it may negatively impact the trading price of our shares of common stock.

We have financed our operations, and we expect to continue seeking to finance our operations, acquisitions, if any, and the development of strategic relationships by issuing equity and/or convertible securities, which could significantly reduce the percentage ownership of our existing stockholders. Further, any additional financing that we secure, including any debt financing, may require the granting of rights, preferences or privileges senior to, or pari passu with, those of our common stock. Any issuances by us of equity securities may be at or below the prevailing market price of our common stock and in any event may have a dilutive impact on your ownership interest, which could cause the market price of our common stock to decline. We may also raise additional funds through the incurrence of debt or the issuance or sale of other securities or

instruments senior to our shares of common stock. The holders of any securities or instruments we may issue may have rights superior to the rights of our common stockholders. If we experience dilution from the issuance of additional securities and we grant superior rights to new securities over common stockholders, it may negatively impact the trading price of our shares of common stock and you may lose all or part of your investment.

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Our largest single stockholder, Choong Choon Hau, has significant voting power over our common stock and may vote his shares in a manner that is not in the best interest of other stockholders.

Our largest single stockholder, Choong Choon Hau, controls approximately 25% of the voting power represented by our outstanding shares of common stock. He will be able to exert significant influence over our management and affairs requiring stockholder approval, including approval of significant corporate transactions and election of directors. This concentration of ownership may have the effect of delaying or preventing a change in control and might adversely affect the market price of our common stock. This concentration of ownership may not be in the best interests of all of our stockholders.

We have never paid any cash dividends and have no plans to pay any cash dividends in the future.

Holders of shares of our common stock are entitled to receive such dividends as may be declared by our Board. To date, we have paid no cash dividends on our shares of our preferred or common stock and we do not expect to pay cash dividends in the foreseeable future. We intend to retain future earnings, if any, to provide funds for the operation of our business. Therefore, any return investors in our preferred or common stock may have will be in the form of appreciation, if any, in the market value of their shares of common stock.

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FORWARD-LOOKING STATEMENTS

This prospectus contains “forward-looking statements” that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, strategy and plans, and our expectations for future operations, are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Exchange Act. We have attempted to identify forward-looking statements by terminology including “anticipates,” “believes,” “can,” “continue,” “could,” “estimates,” “expects,” “intends,” “may,” “plans,” “potential,” “predicts,” “should,” or “will” or the negative of these terms or other comparable terminology. Although we do not make forward looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. Forward-looking statements included or incorporated by reference in this prospectus or our other filings with the SEC include, but are not necessarily limited to, those relating to uncertainties relating to:

- our ability to raise capital when needed;
- difficulties or delays in the product development process, including the results of preclinical studies or clinical trials;
- financing and strategic agreements and relationships;
- difficulties or delays in the regulatory approval process;
- adverse side effects or inadequate therapeutic efficacy of our drug candidates that could slow or prevent product development or commercialization;
- dependence on third-party suppliers;
- uncertainties relating to manufacturing, sales, marketing and distribution of our drug candidates that may be successfully developed and approved for commercialization;
- the uncertainty of protection for our patents and other intellectual property or trade secrets; and
- competition.

These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under “Risk Factors” or elsewhere in this prospectus, which may cause our or our industry’s actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements.

Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by which, that performance or those results will be achieved. Forward-looking statements are based on information available at the time they are made and/or management’s good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from what is expressed in or suggested by the forward-looking statements.

Forward-looking statements speak only as of the date they are made. You should not put undue reliance on any forward-looking statements. We assume no obligation to update forward-looking statements to reflect actual results, changes in assumptions or changes in other factors affecting forward-looking information, except to the extent required by U.S. federal securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements. We caution you not to give undue weight to such projections, assumptions and estimate.

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USE OF PROCEEDS

We estimate that the net proceeds to us from our issuance and sale of the common stock in this offering will be \$ _____, based on an assumed public offering price of \$ _____ per share, after deducting underwriting discounts and commissions and estimated offering expenses.

We intend to use the net proceeds from this offering for the following purposes:

Purpose	Estimated Amount	Estimated Percentage of Net Proceeds
Pursue strategic alternatives	\$	%
Funding of potential acquisitions		
Working capital and general corporate purposes		
Total	\$	100.0%

We currently intend to use a significant portion of the net proceeds from the sale of the shares of our common stock to increase our cash position and to explore and evaluate strategic alternatives to enhance shareholder value. Our increased cash position will provide us with the ability to more effectively engage potential partners to explore such strategic alternatives, potentially including an acquisition, merger, reverse merger, sale of assets, licensing or other business combination transaction. We also plan to use a portion of the net proceeds of this offering to finance the costs of potentially acquiring or investing in competitive and complementary businesses, products and technologies as a part of our growth strategy. To date, we have no commitments with respect to any such strategic alternatives or acquisitions.

We also currently intend to use the net proceeds for working capital and other general corporate purposes, including continuing product development expenses, salaries, professional fees, public reporting costs, office-related expenses and other corporate expenses, including interest and overhead.

The amount and timing of our actual expenditures will depend on numerous factors, including the cash used in or generated by our operations, future acquisitions, if any, the pace of the integration of any acquired businesses, and the level of our sales and marketing activities.

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DIVIDEND POLICY

To date, we have paid no cash dividends on our shares of our preferred or common stock and we do not expect to pay cash dividends in the foreseeable future. We intend to retain future earnings, if any, to provide funds for operations of our business. Therefore, any return investors in our preferred or common stock may have will be in the form of appreciation, if any, in the market value of their shares of common stock. The payment of dividends on our common stock will be at the discretion of our Board and will depend on our results of operations, capital requirements, financial condition, prospects, contractual arrangements, any limitations on payment of dividends present in our future debt agreements, and other factors that our Board may deem relevant.

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CAPITALIZATION

The following table summarizes our cash and capitalization as of March 31, 2023, (a) on an actual basis, and (b) on an as adjusted basis to reflect the estimated net proceeds we will receive from the sale of shares of common stock offered by this prospectus at an assumed public offering price of \$ per share, after deducting the underwriting discount and the estimated offering expenses we will pay.

The information below should be read in conjunction with our unaudited condensed consolidated financial statements included in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, which is incorporated in this prospectus by reference. These financial statements should also be read with the "Management's Discussion and Analysis of Financial Condition and Results of Operations," which is included in such Form 10-Q and incorporated herein by reference.

<i>(\$ thousands)</i>	As of March 31, 2023	As Adjusted for this Offering ⁽¹⁾
	Actual (Unaudited)	(Unaudited)
Cash and cash equivalents	\$ 1,136	\$
Stockholders' equity:		
Common Stock, \$0.001 par value: authorized 225,000,000 shares; issued and outstanding 15,016,295 shares, actual; issued and outstanding, as adjusted for this offering, shares ⁽¹⁾	15	
Additional paid-in capital	387,609	
Accumulated deficit	(387,936)	
Total stockholders' equity (deficit)	(312)	
Total capitalization	\$ (312)	\$

(i) The number of shares issued and outstanding and the additional paid-in capital exclude (i) up to 9,826,881 shares to be issued upon exercise of outstanding common stock warrants, (ii) up to 679 shares to be issued upon exercise of outstanding stock options pursuant to our 2014 Stock Plan, (iii) up to 910,568 shares to be issued upon exercise of outstanding stock options pursuant to our 2015 Stock Plan, (iv) 1,025,000 shares to be issued upon exercise of stock options subject to shareholder approval of an amendment to increase the number of shares reserved for issuance under our 2015 Stock Plan, and (v) 89,432 shares available for future issuance under our 2015 Stock Plan.

Except as otherwise noted, all information in this prospectus reflects and assumes no exercise of outstanding warrants and stock options.

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DILUTION

If you purchase our common stock, you may experience dilution to the extent of the difference between the public offering price per share in this offering and our adjusted net tangible book value per share immediately after this offering. Net tangible book value per share is equal to the amount of our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. As of March 31, 2023, our net tangible book value deficit was approximately \$0.3 million or

approximately (\$0.02) per share.

After giving effect to the sale by us of _____ shares of our common stock in this offering at an assumed public offering price of \$ _____ per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our adjusted net tangible book value as of March 31, 2023 would have been approximately \$ _____, or approximately \$ _____ per share. This represents an immediate increase in net tangible book value of \$ _____ per share to existing stockholders and an immediate decrease in net tangible book value of \$ _____ per share to new investors purchasing shares of our common stock in this offering.

The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		\$
Net tangible book (deficit) value per share as of March 31, 2023	\$	
Increase in net tangible book value per share attributed to new investors participating in this offering		
As adjusted net tangible book value per share after giving effect to this offering		\$
Dilution per share to new investors in this offering		\$

The foregoing discussion and table do not take into account that we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

Except as otherwise noted, all information in this prospectus reflects and assumes no exercise of outstanding warrants and stock options.

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DESCRIPTION OF OUR CAPITAL STOCK

General

We are offering _____ shares of our common stock in this offering. The following is a summary of all material characteristics of our capital stock as set forth in our Amended and Restated Certificate of Incorporation and Bylaws. The summary does not purport to be complete and is qualified in its entirety by reference to our Amended and Restated Certificate of Incorporation and Bylaws, copies of which are incorporated by reference to the exhibits to the registration statement of which this prospectus is a part, as well as the relevant portions of the Delaware corporate law.

Common Stock

We are authorized to issue 225,000,000 shares of common stock, par value \$0.001 per share, of which 15,016,295 shares are issued and outstanding as of June 23, 2023. Each holder of common stock is entitled to one vote for each share of common stock held on all matters submitted to a vote of the stockholders, including the election of directors. Our Amended and Restated Certificate of Incorporation and Bylaws do not provide for cumulative voting rights. Subject to preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our Board out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock. Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that are outstanding or that we may designate and issue in the future. All of our outstanding shares of common stock are fully paid and nonassessable.

Preferred Stock

We are authorized to issue 5,000,000 shares of preferred stock, par value \$0.001 per share, none of which are outstanding as of June 23, 2023. Our Board is empowered, without stockholder approval, to issue shares of preferred stock with dividend, liquidation, redemption, voting or other rights which could adversely affect the voting power or other rights of the holders of common stock. We may issue some or all of the preferred stock to effect a business combination. In addition, the preferred stock could be utilized as a method of discouraging, delaying or preventing a change in control of us. Although we do not currently intend to issue any shares of preferred stock, we cannot assure you that we will not do so in the future.

Anti-Takeover Provisions of our Certificate of Incorporation and Bylaws

In addition to our authorized preferred stock, the following provisions contained in our Amended and Restated Certificate of Incorporation and our Bylaws could delay or discourage some transactions involving an actual or potential change in control of our company or management:

- our Board without the assent or vote of the stockholders may make, alter, amend, change, add to or repeal our Bylaws; and
- our directors may fill any vacancies on our Board, including vacancies resulting from a Board resolution to increase the number of directors.

Our Transfer Agent

The transfer agent for our common stock is Continental Stock Transfer & Trust Company, New York, New York.

Stock Exchange Listing

Our common stock trades on The Nasdaq Capital Market under the symbol "TTNP."

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UNDERWRITING

Subject to the terms and conditions of an underwriting agreement between us and the underwriter, we have agreed to sell to each underwriter named below, and each underwriter named below has severally agreed to purchase, at the public offering price less the underwriting discounts set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name of Underwriter

Number of shares

Total

The underwriter is committed to purchase all the shares of common stock offered by this prospectus if they purchase any shares of common stock. The underwriter is offering the shares of common stock, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by its counsel, and other conditions contained in the underwriting agreement, such as the receipt by the underwriter of officer's certificates and a legal opinion. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Discounts and Commissions

We have agreed to pay the underwriter a cash fee equal to _____ % of the aggregate gross proceeds from the sale of the common stock.

The underwriter has advised us that it proposes to offer the shares directly to the public at the public offering price set forth on the cover of this prospectus. In addition, the underwriter may offer some of the shares to other securities dealers at such price less a concession of up to \$ _____ per share of our common stock. After the offering to the public, the offering price and other selling terms may be changed by the underwriter without changing our proceeds from the underwriter's purchase of the shares.

The following table summarizes the public offering price, underwriting commissions and proceeds before expenses to us. The underwriting commissions are equal to the public offering price per share, less the amount per share the underwriter pays us for the shares of common stock.

	Per share	Total
Public offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to us	\$	\$

We have agreed to reimburse the underwriter for its out-of-pocket accountable expenses. We estimate that the total expenses of the offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding underwriting discounts and commissions, will be approximately \$ _____, all of which are payable by us.

Lock-Up Agreements

We and each of our officers and directors have agreed, subject to certain exceptions, not to offer, issue, sell, contract to sell, encumber, grant any option for the sale of or otherwise dispose of any shares of our common stock or other securities convertible into or exercisable or exchangeable for shares of our common stock for a period of 90 days after this offering is completed without the prior written consent of the underwriter.

The underwriter may in its sole discretion and at any time without notice release some or all of the shares subject to lock-up agreements prior to the expiration of the lock-up period. When determining whether or not to release shares from the lock-up agreements, the underwriter will consider, among other factors, the security holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time.

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Price Stabilization, Short Positions, and Penalty Bids

In connection with this offering, the underwriter may engage in transactions that stabilize, maintain or otherwise affect the price of our common stock. Specifically, the underwriter may over-allot in connection with this offering by selling more shares than are set forth on the cover page of this prospectus. This creates a short position in our common stock for its own account. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares of common stock over-allotted by the underwriter is not greater than the number of shares of common stock that they may purchase in the over-allotment option. In a naked short position, the number of shares of common stock involved is greater than the number of shares of common stock in the over-allotment option. To close out a short position, the underwriter may elect to exercise all or part of the over-allotment option. The underwriter may also elect to stabilize the price of our common stock or reduce any short position by bidding for, and purchasing, common stock in the open market.

The underwriter may also impose a penalty bid. This occurs when a particular underwriter or dealer repays selling concessions allowed to it for distributing a security in this offering because the underwriter repurchases that security in stabilizing or short covering transactions.

Finally, the underwrites may bid for, and purchase, shares of our common stock in market making transactions, including "passive" market making transactions as described below.

These activities may stabilize or maintain the market price of our common stock at a price that is higher than the price that might otherwise exist in the absence of these activities. The underwriter is not required to engage in these activities, and may discontinue any of these activities at any time without notice.

In connection with this offering, the underwriter and selling group members, if any, or their affiliates may engage in passive market making transactions in our common stock immediately prior to the commencement of sales in this offering, in accordance with Rule 103 of Regulation M under the Exchange Act. Rule 103 generally provides that:

- a passive market maker may not effect transactions or display bids for our common stock in excess of the highest independent bid price by persons who are not passive market makers;
- net purchases by a passive market maker on each day are generally limited to 30% of the passive market maker's average daily trading volume in our common stock during a specified two-month prior period or 200 shares, whichever is greater, and must be discontinued when that limit is reached; and
- passive market making bids must be identified as such.

Electronic Distribution

A prospectus in electronic format may be made available on a website maintained by the representatives of the underwriter and may also be made available on a website maintained by other underwriters. The underwriter may agree to allocate a number of shares to underwriters for sale to its online brokerage account holders. Internet distributions will be allocated by the representatives of the underwriter to underwriters that may make internet distributions on the same basis as other allocations. In connection with the offering, the underwriter or syndicate members may distribute prospectuses electronically. No forms of electronic prospectus other than prospectuses that are printable as Adobe® PDF will be used in connection with this offering.

The underwriter has informed us that it does not expect to confirm sales of shares offered by this prospectus to accounts over which they exercise discretionary

authority.

Other than the prospectus in electronic format, the information on the underwriter's website and any information contained in any other website maintained by the underwriter is not part of the prospectus or the registration statement of which this prospectus forms a part, has not been approved and/or endorsed by us or any underwriter in its capacity as underwriter and should not be relied upon by investors.

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LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon for us by our counsel Olshan Frome Wolosky LLP, New York, New York.

EXPERTS

The consolidated financial statements as of December 31, 2022 and 2021 and for the years then ended incorporated by reference in this prospectus and in the registration statement have been so incorporated in reliance on the report of WithumSmith+Brown, PC, an independent registered public accounting firm, incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus constitutes a part of a registration statement on Form S-1 filed by us with the SEC under the Securities Act with respect to our common stock offered by this prospectus. This prospectus does not contain all of the information included in the registration statement. We have omitted certain parts of the registration statement, as allowed by the rules and regulations of the SEC. You may wish to inspect the registration statement and the exhibits to that registration statement for further information with respect to us and our common stock offered by this prospectus. Copies of the registration statement and the exhibits to such registration statement are on file at the offices of the SEC and may be obtained upon payment of the prescribed fee or may be examined without charge at the public reference facilities of the SEC described below. Statements contained or incorporated by reference in this prospectus concerning the provisions of certain documents are necessarily summaries of the material provisions of such documents, and each statement is qualified in its entirety by reference to the copy of the applicable document filed with the SEC.

We file annual reports, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC at www.sec.gov.

We maintain an Internet website at www.titanpharm.com. All of our reports filed with the SEC (including Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and proxy statements) are accessible through the Investor Relations section of our website, free of charge, as soon as reasonably practicable after electronic filing. The reference to our website in this prospectus is an inactive textual reference only and is not a hyperlink. The contents of our website are not part of this prospectus, and you should not consider the contents of our website in making an investment decision with respect to our securities.

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INCORPORATION OF INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus information contained in documents that we file with it. This means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. The documents we are incorporating by reference as of their respective dates of filing are:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2022 filed with the SEC on March 31, 2023;
- our Quarterly Reports on [Form 10-Q](#) for the quarter ended March 31, 2023 filed with the SEC on May 15, 2023;
- our Current Reports on [Form 8-K](#) filed with the SEC on [January 6, 2023](#), [February 9, 2023](#), [March 3, 2023](#), [March 22, 2023](#), [April 11, 2023](#) and [June 6, 2023](#); and
- the description of our common stock contained in Exhibit 4.13 to our Annual Report on [Form 10-K](#) for the year ended December 31, 2019 filed with the SEC on March 30, 2020, including any amendments and reports filed for the purpose of updating such description.

Any statement incorporated by reference in this prospectus from an earlier dated document that is inconsistent with a statement contained in this prospectus or in any other document filed after the date of the earlier dated document, but prior to the date hereof, which also is incorporated by reference into this prospectus, shall be deemed to be modified or superseded for purposes of this prospectus by such statement contained in this prospectus or in any other document filed after the date of the earlier dated document, but prior to the date hereof, which also is incorporated by reference into this prospectus.

Any person, including any beneficial owner, to whom this prospectus is delivered may request copies of this prospectus and any of the documents incorporated by reference into this prospectus, without charge, by written request directed to Titan Pharmaceuticals, Inc., 400 Oyster Point Blvd, Suite 505, South San Francisco, California 94080, or via the investor relation's section of our website at <https://ir.titanpharm.com/>, or from the SEC through the SEC's internet website at the address provided under "Where You Can Find More Information." Documents incorporated by reference into this prospectus are available without charge, excluding any exhibits to those documents unless the exhibit is specifically incorporated by reference into those documents.

Except as expressly provided above, no other information, including none of the information on our website, is incorporated by reference into this prospectus.

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DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION FOR SECURITIES ACT LIABILITIES

Our directors and officers are indemnified as provided by Section 145 of the Delaware General Corporation Law and our Bylaws. We have agreed to indemnify each of our directors and certain officers against certain liabilities, including liabilities under the Securities Act. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the provisions described above, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such

liabilities (other than our payment of expenses incurred or paid by our director, officer or controlling person in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

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\$11,000,000



Titan Pharmaceuticals, Inc.

Shares of Common Stock

PROSPECTUS

, 2023

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PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The estimated expenses payable by us in connection with the offering described in this registration statement (other than the underwriting discount and commissions) will be as follows:

SEC Registration Fee	\$	1,212.20
FINRA filing fee		—
Accounting fees and expenses		—
Printing and engraving expenses		—
Legal fees and expenses		—
Underwriter expenses		—
Miscellaneous		—
Total	\$	—

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware, or DGCL, empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including

attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person's heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

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Our Amended and Restated Certificate of Incorporation provide that we will indemnify our directors and officers to the fullest extent permitted by the DGCL, which prohibits our Amended and Restated Certificate of Incorporation from limiting the liability of our directors for the following:

- any breach of the director's duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper benefit.

Our Amended and Restated Certificate of Incorporation provides for indemnification of our directors and executive officers to the maximum extent permitted by the DGCL, and our bylaws provide for indemnification of our directors and executive officers to the maximum extent permitted by the DGCL.

We have entered into indemnification agreements with each of our current directors. These agreements will require us to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to us and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. We also intend to enter into indemnification agreements with our future directors and executive officers.

In any underwriting agreement we enter into in connection with the sale of common stock being registered hereby, the underwriter will agree to indemnify, under certain conditions, us, our directors, our officers and persons who control us, within the meaning of the Securities Act, against certain liabilities.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

The following information sets forth certain information with respect to all unregistered securities which we have sold during the last three years:

In January 2020, in connection with a concurrent registered direct offering to a small number of institutional investors, we issued warrants to purchase 290,000 shares of common stock at an exercise price of \$7.50 per share, which warrants are exercisable for a period of five years commencing September 18, 2020. Maxim Group LLC acted as the placement agent in connection with the offering and received a cash fee of 7.0% of the gross proceeds paid to us and reimbursement of certain out-of-pocket expenses.

In January 2021, in connection with a concurrent registered direct offering to a small number of institutional investors, we issued warrants to purchase 2,725,000 shares of common stock at an exercise price of \$3.55 per share, which warrants are exercisable for a period of five and one-half years commencing January 20, 2021. Maxim Group LLC acted as the placement agent in connection with the offering and received a cash fee of 7.0% of the gross proceeds paid to us and reimbursement of certain out-of-pocket expenses.

In February 2022, in connection with a concurrent registered direct offering to a single institutional investor, we (i) sold 1,289,796 pre-funded warrants at a price of \$1.179, each exercisable to purchase one share of common stock at an exercise price of \$0.001 per share and (ii) issued warrants to purchase 4,664,038 shares of common stock at an exercise price of \$1.14 per share, which warrants are exercisable for a period of five and one-half years commencing February 4, 2022. Maxim Group LLC acted as the placement agent in connection with the offering and received a cash fee of 7.0% of the gross proceeds paid to us and reimbursement of certain out-of-pocket expenses.

The offers, sales and issuances of the securities described above were exempt from registration under the Securities Act by virtue of Section 4(a)(2) of the Securities Act.

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ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.

- (a) The following exhibits are filed as part of this Registration Statement:

EXHIBIT INDEX

No.	Description
1.1**	Underwriting Agreement
3.1.1	Amended and Restated Certificate of Incorporation of the Registrant, as amended⁽²⁾
3.1.2	Certificate of Amendment to the Restated Certificate of Incorporation dated September 24, 2019⁽⁴⁾
3.1.3	Certificate of Amendment to the Restated Certificate of Incorporation dated January 23, 2019⁽¹⁰⁾
3.1.4	Certificate of Amendment to the Restated Certificate of Incorporation dated November 30, 2020⁽²⁰⁾
3.2	By-laws of the Registrant⁽¹⁾
3.3	Amendment to the By-laws of the Registrant dated December 29, 2021⁽²³⁾
3.4	Amendment to the By-laws of the Registrant dated July 5, 2022⁽²⁵⁾
4.1	Form of Lender Warrant⁽⁶⁾
4.2	Form of Rights Agreement Warrant⁽⁷⁾
4.3	Warrant Agency Agreement between Titan Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company and Form of Offering Warrant⁽⁹⁾
4.4	Representative's Purchase Warrant⁽⁹⁾
4.5	Form of August 2019 Private Placement Warrant⁽¹¹⁾
4.6	Class B Warrant Agency Agreement dated October 16, 2019 between Titan Pharmaceuticals, Inc. and Maxim Group LLC Form of January 2020 Private Placement Warrant⁽¹²⁾
4.7	Form of January 2020 Private Placement Warrant⁽¹³⁾
4.8	Form of March 3, 2020 Warrant Amendment Agreement⁽¹⁶⁾
4.9	Description of the Registrant's Common Stock⁽¹⁵⁾
4.10	Warrant Agency Agreement between Titan Pharmaceuticals, Inc. and Continental Stock Transfer & Trust Company and Form of Warrant⁽¹⁸⁾
4.11	Form of January 2021 Private Placement Warrant⁽²¹⁾
4.12	Form of February 2022 Registered Pre-Funded Warrant⁽²⁴⁾
4.13	Form of February 2022 Private Pre-Funded Warrant⁽²⁴⁾
4.14	Form of February 2022 Placement Warrant⁽²⁴⁾
5.1**	Opinion of Olshan Frome Wolosky LLP, as to the legality of the shares being offered
10.1	Titan Pharmaceuticals, Inc. Third Amended and Restated 2015 Omnibus Equity Incentive Plan⁽¹⁰⁾
10.2	Employment Agreement between the Registrant and Marc Rubi⁽⁵⁾
10.3 ±	Distribution and Sublicense Agreement dated February 1, 2016 as amended by agreement dated August 2, 2018 between Titan Pharmaceuticals, Inc. and Knight Therapeutics Inc.⁽⁸⁾
10.4	Amendment to lease for Registrant's facility dated March 21, 2019⁽⁸⁾
10.5	Employment Agreement between the Registrant and Katherine Beebe DeVarney⁽¹⁴⁾
10.6	Debt Settlement and Release Agreement by and between Titan Pharmaceuticals, Inc., Horizon Technology Finance Corporation and L. Molteni & C. Dei Frattelli Alitti Società Di Esercizio S.P.A.⁽¹⁷⁾
10.7±±	Asset Purchase Agreement dated October 27, 2020 between Titan Pharmaceuticals, Inc. and JT Pharmaceuticals, Inc.⁽¹⁹⁾
10.8	Placement Agency Agreement dated January 15, 2021, by and between Titan Pharmaceuticals, Inc. and Maxim Group LLC⁽²¹⁾
10.9	Amendment to Employment Agreement between the Registrant and Marc Rubi⁽²²⁾
10.10	Form of February 2022 Securities Purchase Agreement⁽²⁴⁾
10.11	Placement Agency Agreement dated February 2, 2022, by and between Titan Pharmaceuticals, Inc. and Maxim Group LLC⁽²⁴⁾
10.12	Form of Amendment to Employment Agreement with Marc Rubi⁽²⁶⁾
10.13	Form of Amendment to Employment Agreement with Kate DeVarney⁽²⁶⁾
10.14	Form of Stock Option Agreement⁽²⁷⁾
10.15	Fifth Amended and Restated 2015 Omnibus Equity Incentive Plan (subject to stockholder approval)⁽²⁸⁾

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10.16	License Agreement between Titan Pharmaceuticals, Inc. and Ocular Therapeutix, Inc., dated as of December 6, 2022⁽²⁹⁾
10.17	Employment Agreement, dated December 14, 2022, between Titan Pharmaceuticals, Inc. and David E. Laza⁽³⁰⁾
10.18	Form of Amendment to Employment Agreement with Kate DeVarney⁽³¹⁾
14.1	Code of Business Conduct and Ethics⁽³⁾
23.1*	Consent of WithumSmith+Brown, PC, Independent Registered Public Accounting Firm
23.2**	Consent of Olshan Frome Wolosky LLP, included in the opinion filed as Exhibit 5.1
24.1	Power of Attorney (set forth on the signature page of the Registration Statement)
107*	Filing Fee Table

± Confidential treatment has been granted as to certain portions of this exhibit.

±± Certain information has been omitted from this exhibit in reliance upon Item 601(b)(10) of Regulation S-K.

(1) Incorporated by reference from the Registrant's Registration Statement on Form S-3 (File No. 333-221126).

(2) Incorporated by reference from the Registrant's Registration Statement on Form 10 filed on January 14, 2010.

(3) Incorporated by reference from the Registrant's Annual Report on Form 10-K for the year ended December 31, 2013.

(4) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on September 28, 2015.

(5) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on April 3, 2019.

(6) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on July 27, 2017.

(7) Incorporated by reference from the Registrant's Current Report on Form 8-K filed on March 26, 2018.

(8) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2018.

(9) Incorporated by reference from the Registrant's Current Report on Form 8-K dated September 25, 2018.

(10) Incorporated by reference from the Registrant's Current Report on Form 8-K dated January 25, 2019.

(11) Incorporated by reference from the Registrant's Current Report on Form 8-K dated August 8, 2019.

(12) Incorporated by reference from the Registrant's Current Report on Form 8-K dated October 18, 2019.

(13) Incorporated by reference from the Registrant's Current Report on Form 8-K dated January 7, 2020.

(14) Incorporated by reference from the Registrant's Annual Report on Form 10-K dated April 1, 2019.

(15) Incorporated by reference from the Registrant's Annual Report on Form 10-K dated March 30, 2020.

(16) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended June 30, 2020.

- (17) Incorporated by reference from the Registrant's Current Report on Form 8-K dated October 26, 2020.
- (18) Incorporated by reference from the Registrant's Registration Statement on Form S-1/A dated October 27, 2020.
- (19) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2020.
- (20) Incorporated by reference from the Registrant's Current Report on Form 8-K dated December 1, 2020.
- (21) Incorporated by reference from the Registrant's Current Report on Form 8-K dated January 19, 2021.
- (22) Incorporated by reference from the Registrant's Current Report on Form 8-K dated October 28, 2021.
- (23) Incorporated by reference from the Registrant's Current Report on Form 8-K dated December 29, 2021.
- (24) Incorporated by reference from the Registrant's Current Report on Form 8-K dated February 3, 2022.
- (25) Incorporated by reference from the Registrant's Current Report on Form 8-K dated July 5, 2022.
- (26) Incorporated by reference from the Registrant's Current Report on Form 8-K dated August 5, 2022.
- (27) Incorporated by reference from the Registrant's Current Report on Form 8-K dated September 21, 2022.
- (28) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2022.
- (29) Incorporated by reference from the Registrant's Current Report on Form 8-K dated December 12, 2022.
- (30) Incorporated by reference from the Registrant's Current Report on Form 8-K dated December 15, 2022.
- (31) Incorporated by reference from the Registrant's Quarterly Report on Form 10-Q for the period ended March 31, 2023.

Unless otherwise indicated, exhibits were previously filed.

- # Indicates management contract or compensatory plan.
- * Filed herewith.
- ** To be filed by amendment.

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ITEM 17. UNDERTAKINGS.

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;
 - (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (i), (ii) and (iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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- (5) That for the purpose of determining any liability under the Securities Act of 1933 in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.
- (d) The undersigned registrant hereby undertakes that:
- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
 - (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Dubai, United Arab Emirates on the 23rd day of June 2023.

TITAN PHARMACEUTICALS, INC.

By: /s/ David E. Lazar

Name: David E. Lazar

Title: Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, each director and officer whose signature appears below constitutes and appoints each of David E. Lazar and Katherine Beebe DeVarney, Ph.D. his true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, to sign in any and all capacities any and all amendments or post-effective amendments to this registration statement on Form S-1, and to sign any and all additional registration statements relating to the same offering of securities of the Registration Statement that are filed pursuant to Rule 462(b) of the Securities Act, and to file the same with all exhibits thereto and other documents in connection therewith with the Securities and Exchange Commission, granting such attorney-in-fact and agent full power and authority to do all such other acts and execute all such other documents as he may deem necessary or desirable in connection with the foregoing, as fully as the undersigned may or could do in person, hereby ratifying and confirming all that such attorney-in-fact and agent may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Name</u>	<u>Position</u>	<u>Date</u>
<u>/s/ David E. Lazar</u> David E. Lazar	Chief Executive Officer and Chairman of the Board of Directors (Principal Executive Officer and Principal Financial Officer)	June 23, 2023
<u>/s/ Katherine Beebe DeVarney, Ph.D.</u> Katherine Beebe DeVarney, Ph.D.	President, Chief Operating Officer and Director	June 23, 2023
<u>/s/ Joseph A. Akers</u> Joseph A. Akers	Director	June 23, 2023
<u>/s/ Avraham Ben-Tzvi, Adv.</u> Avraham Ben-Tzvi, Adv.	Director	June 23, 2023
<u>/s/ Peter L. Chasey, Esq.</u> Peter L. Chasey, Esq.	Director	June 23, 2023
<u>Eric Greenberg</u>	Director	June 23, 2023
<u>/s/ M. David MacFarlane, Ph.D.</u> M. David MacFarlane, Ph.D.	Director	June 23, 2023

<u>/s/ Matthew C. McMurdo, Esq.</u> Matthew C. McMurdo, Esq.	Director	June 23, 2023
<u>/s/ James R. McNab, Jr.</u> James R. McNab, Jr.	Director	June 23, 2023
<u>/s/ David Natan</u> David Natan	Director	June 23, 2023
<u>/s/ Brian Crowley</u> Brian Crowley	Vice President, Finance (Principal Accounting Officer)	June 23, 2023



CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Prospectus constituting a part of this Registration Statement on Form S-1 of our report dated March 31, 2023 (which includes an explanatory paragraph relating to Titan Pharmaceuticals, Inc.'s ability to continue as a going concern) relating to the financial statements, which is incorporated by reference in that Prospectus.

We also consent to the reference to us under the caption "Experts" in the Prospectus.

WithumSmith+Brown, PC

San Francisco, California
June 23, 2023

WithumSmith+Brown, PC 601 California Street, 18th Floor, San Francisco, California 94108-2834 T (415) 434 3744 F (415) 788 2260 withum.com

AN INDEPENDENT MEMBER OF HLB - THE GLOBAL ADVISORY AND ACCOUNTING NETWORK

Calculation of Filing Fee Table

Form S-1
(Form Type)

Titan Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price ⁽¹⁾	Fee Rate	Amount of Registration Fee
Equity	Common stock, par value \$0.001 per share ⁽²⁾	457(o)			\$ 11,000,000	.00011020	\$ 1,212.20
		Total Offering Amounts		—	\$ 11,000,000	—	\$ —
		Fees Previously Paid					\$ —
		Total Fee Offsets					—
		Net Fee Due					—

(1) Estimated solely for the purpose of calculating the amount of the registration fee in pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the “Securities Act”).

(2) Pursuant to Rule 416 under the Securities Act, also includes an indeterminable number of shares of common stock that may become issuable by reason of stock splits, stock dividends, and similar transactions.